

What is claimed is:

- 1) A composition comprising:
 - a) an effective amount of pyrithione or a polyvalent metal salt of a pyrithione;
 - b) an effective amount of a zinc-containing layered material which provides an augmentation factor greater than 1.
- 2) A composition according to Claim 1 wherein an augmentation factor of greater than 1.3 is achieved when ZPT is in combination with a zinc-containing material.
- 3) A composition according to Claim 1 wherein an augmentation factor of greater than 1.5 is achieved when ZPT is in combination with a zinc-containing material.
- 4) A composition according to Claim 1 wherein a ratio of zinc-containing layered material to pyrithione or a polyvalent metal salt of pyrithione is from about 5:100 to about 10:1.
- 5) A composition according to Claim 1 wherein the zinc-containing layered material is selected from the group consisting of basic zinc carbonate, zinc carbonate hydroxide, hydrozincite, zinc copper carbonate hydroxide, aurichalcite, copper zinc carbonate hydroxide, rosasite, phyllosilicate containing zinc ions, layered double hydroxide, hydroxy double salts and mixtures thereof.
- 6) A composition according to Claim 5 wherein wherein the zinc-containing layered material is selected from the group consisting of zinc carbonate hydroxide, hydrozincite, basic zinc carbonate and mixtures thereof.
- 7) A composition according to Claim 6 wherein wherein the zinc-containing layered material is hydrozincite or basic zinc carbonate.

- 8) A composition according to Claim 6 wherein the zinc containing layered material is basic zinc carbonate.
- 9) A composition according to Claim 1 wherein the pyrrithione or polyvalent metal salt of pyrrithione is zinc pyrrithione.
- 10) A composition according to Claim 1 wherein the zinc-containing layered material is present from about 0.001% to about 10%.
- 11) A composition according to Claim 1 wherein the zinc-containing layered material is present from about 0.01% to about 7%.
- 12) A composition according to Claim 1 wherein the zinc-containing layered material is present from about 0.1% to about 5%.
- 13) A composition according to Claim 9 wherein the zinc pyrrithione is present from about 0.01% to about 5%.
- 14) A composition according to Claim 13 wherein the ZPT is present from about 0.1% to about 2%.
- 15) A composition comprising:
 - (a) an antimicrobially effective amount of pyrrithione or a polyvalent metal salt of a pyrrithione, and
 - (b) a zinc-containing layered material in an amount sufficient to enhance the efficacy of component (a); with the proviso that component (b) is present in a weight ratio of from about 5:100 to about 10:1 based upon the amount of component (a) present in said composition.

- 16) The composition of claim 15 wherein component (a) is zinc pyrithione.
- 17) The composition of claim 15 wherein component (b) is present in said composition as basic zinc carbonate.
- 18) A process for preparing a basic zinc carbonate-containing personal care composition selected from the group consisting of shampoo, soap, skin care medicament, and combinations thereof, said process comprising reacting, in a personal care composition comprising pyrithione or a polyvalent metal salt of a pyrithione, a carbonate or bicarbonate salt that is soluble in the personal care composition with a zinc compound that is soluble or insoluble in the personal care composition, said zinc compound being selected from the group consisting of zinc salts of organic acids, zinc salts of inorganic acids, zinc hydroxide, zinc oxide, and combinations thereof, thereby causing in-situ formation of the carbonate salt with the zinc salt to form said basic zinc carbonate in said basic zinc carbonate-containing personal care composition.
- 19) The process of claim 18 wherein said zinc compound is zinc hydroxide, and wherein said carbonate salt is sodium carbonate, and wherein said zinc hydroxide, and wherein said zinc hydroxide is reacted with said sodium carbonate in a molar ratio within a range of between about 1:10 and about 10:1.
- 20) The process of claim 18 wherein the pyrithione or a polyvalent metal salt of a pyrithione and the basic zinc carbonate are simultaneously or step wise generated in situ in the personal care composition.
- 21) A personal care composition selected from the group consisting of shampoo, soap, skin care medicament, and combinations thereof, said personal care composition comprising:
- (a) water, alcohol, or a combination thereof,
 - (b) pyrithione or a polyvalent metal salt of a pyrithione, and
 - (c) as an augmentation agent for enhancing the antimicrobial efficacy of said pyrithione or polyvalent metal salt of pyrithione, particles or a layered film of an in-situ reaction product of a zinc compound selected from the group consisting of zinc salts of organic acids, zinc salts of inorganic acids, zinc hydroxide, zinc oxide, and combinations

thereof, said zinc compound being soluble in said water or alcohol, with a carbonate salt other than basic zinc carbonate that is soluble in said water or alcohol.

22) A process for preparing a basic zinc carbonate-containing personal care composition selected from the group consisting of shampoo, soap, skin care medicament, and combinations thereof, said process comprising reacting, in a personal care composition, a carbonate or bicarbonate salt that is soluble in the personal care composition with a zinc compound that is soluble or insoluble in the personal care composition, said zinc compound being selected from the group consisting of zinc salts of organic acids, zinc salts of inorganic acids, zinc hydroxide, zinc oxide, and combinations thereof, thereby causing in-situ formation of the carbonate salt with the zinc salt to form said basic zinc carbonate in said basic zinc carbonate-containing personal care composition.

23) A method of treating microbial infections comprising the use of the composition of Claim 1.

24) A method of treating fungal infections comprising the use of the composition of Claim 1.

25) A method of treating dandruff comprising the use of the composition of Claim 1.